

REMARKS

Claims 26-61 are pending in the application. Claim 29, 39, 40, 43 and 48 have been amended herein for consistency and to better describe certain aspects of the invention. Since the amendments place the application in condition for allowance, do not require further searching, and/or remove issues in the event of an appeal, entry is respectfully requested. Favorable reconsideration in light of the amendments and the remarks which follow is respectfully requested.

The Amendments and Indefiniteness Rejection

Claims 43 and 48 have been rejected under 35 U.S.C. § 112, second paragraph for lacking antecedent basis for the word "uncoated". Claims 43 and 48 have been amended to correct the antecedent basis issues with changing the scope thereof.

Claims 29, 39, and 40 have been amended to correct typographical errors.

The Obviousness Rejection

Claims 26-61 have been rejected under 35 U.S.C. § 103(a) over EP 0 581 550 (EP'550) in view of either CN 1,104,610 (CN'610) or CA 959,238 (CA'238). EP'550 relates to a solid composition of a chlorite salt, a chlorine releasing agent, and a proton donor admixed together under anhydrous conditions. The admixture is then dissolved in water to produce chlorine dioxide.

CN'610 relates to a non-woven cloth bag containing 1) microcapsules of wax, stearic acid and sodium chlorate and 2) solid acidifier particles. The bag then produces chlorine dioxide when placed in water. Microcapsulating the sodium chlorate in wax enables the direct mixing with the solid acidifier particles without easily reacting. CN'610 teaches at page 3 that direct mixing of sodium chlorate and solid acidifier particles immediately produces chlorine dioxide.

CA'258 relates to producing chlorine dioxide by immersing in water a receptacle of an alkali or alkaline earth metal chlorite and acid. The receptacle is a water soluble envelope, and the alkali/alkaline earth metal chlorite and acid are SEPARATELY

wrapped. See page 4, line 5 of CA'258. That is, the alkali/alkaline earth metal chlorite and acid are in contact with each other in the package.

Claims 26-60

The Examiner contends that it would have been obvious to use a water soluble material (of either CN'610 or CA'238) to form an envelope for the chlorine generating composition (of EP'550). Applicants respectfully disagree.

While EP'550 describes a composition of a chlorite salt, a chlorine releasing agent, and a proton donor, EP'550 fails to discuss storing the admixture in any type of container. EP'550 also fails to discuss storage time for the admixture. This is because EP'550 uses the composition immediately after it is made. This is clear from the examples, it is clear from the mandate to admix the ingredients under anhydrous conditions, and more importantly, one skilled in the art would understand that EP'550 describes making a chlorine dioxide generating composition for on-site use. EP'550 states at page 2, line 17 that there are dangers associated with storage of chlorine dioxide, and at page 2, line 27 that there is need for a storable composition that can generate chlorine dioxide. However, EP'550 NEVER describes a storable composition.

In this context, Applicants respectfully request the Examiner to specifically identify by page and line number the passage of EP'550 where a storable chlorine dioxide generating composition is described. This cannot be done, because EP'550 fails to make this disclosure. EP'550 fails to teach or suggest metal chlorite and an acid forming component together where they do react with each other in the presence of water but not in the substantial absence of water to produce chlorine dioxide. Consequently, there is no teaching or suggestion to package or store the chlorine dioxide generating composition in EP'550.

Both CN'610 or CA'238 describe a chlorine dioxide generating composition in a package. However, the package of CA'238 contains SEPARATE compartments for the alkali/alkaline earth metal chlorite and the acid. As a result, the disclosure in CA'238 would NOT have motivated one skilled in the art to package and store the chlorine

dioxide generating composition of EP'550 because the chlorite salt and the proton donor of EP'550 are NOT SEPARATED. The condition necessary to use the package of CA'238 is the separation of reactive components. Since this condition is not met by EP'550, one skilled in the art would NOT have applied its teachings.

CN'610 teaches that packaging a chlorine dioxide generating composition is possible IF the metal chlorate is protected with a wax coating. CN'610 specifically teaches against direct contact between sodium chlorate and an acidifier on page 3. The condition necessary to use the package of CN'610 is the wax coating formed on the sodium chlorate. Since the chlorite salt of EP'550 is not protected by a wax coating, one skilled in the art would NOT have used the package of CN'610 for the chlorine dioxide generating composition of EP'550.

For at least these reasons, EP'550 and CN'610 or CA'238 cannot render claim 26 obvious. Withdrawal of the rejection of claims 26-60 is therefore respectfully requested.

Claim 61

With specific regard to claim 61, the Examiner contends that it would have been obvious to put the chlorine generating composition in a water-insoluble or water-soluble bag to form bags of pre-measured amounts of a chlorine generating composition which would be conveniently added to water. For support, the Examiner further contends that the language "consisting essentially of" does not exclude extra components in the theoretical bagged chlorine generating composition of EP'550, CN'610, and CA'238.

However, as noted by MPEP § 2111.03, the transitional phrases "comprising", "consisting essentially of" and "consisting of" define the scope of a claim with respect to what unrecited additional components, if any, are excluded from the scope of the claim. The transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials "and those that do not materially affect the basic and novel characteristic(s)" of the claimed invention. *In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976) (emphasis in original).

The chlorine dioxide generating composition of EP'550 contains a chlorine releasing agent, such as trichloro isocyanurate or dichloro isocyanurate. The presence of chlorine releasing agent complicates the simple and efficient chlorine dioxide generating reaction between the metal chlorite and acid by forming by-product(s) other than chlorine dioxide. The chlorine releasing agent releases chlorine atoms without oxygen which is generally undesired (only chlorine dioxide is desired). Moreover, the chlorine releasing agent does not further the ability of chlorine dioxide to oxidize target species. The formation of by-product(s) and the release of chlorine atoms without oxygen materially affects the basic and novel characteristics of the claimed invention.

Therefore, the transitional phrase "consisting essentially of" limits the scope of the mixture of claim 61 to the metal chlorite and the acid forming component. The chlorine releasing agent of EP'550 is excluded from claim 61. For at least these reasons, EP'550 and CN'610 or CA'238 cannot render claim 61 obvious. Withdrawal of the rejection of claim 61 is respectfully requested.

Petition for Extension of Time

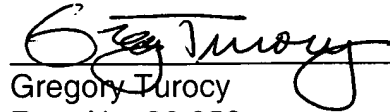
A request for a one month extension of time is hereby made. A Credit Card charge form is enclosed herewith to pay the petition fees.

Should the Examiner believe that a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

In the event any fees are due in connection with the filing of this document, the Commissioner is authorized to charge those fees to our Deposit Account No. 50-1063.

Respectfully submitted,

AMIN & TUROCY, LLP

A handwritten signature in cursive script, appearing to read "Greg Turocy", is written over a horizontal line.

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